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10/694,690	10/28/2003	Manfred Gilbert	21295.68 (H745US)	3928

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EXAMINER

PRITCHETT, JOSHUA L

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/694,690
Filing Date: October 28, 2003
Appellant(s): GILBERT, MANFRED

Maria Eliseeva
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed August 30, 2006 appealing from the Office action mailed October 17, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

	REICHEL	9-1983
4,403,839		
4,123,170	UCHIYAMA ET AL.	10-1978
5,557,456	GARNER ET AL.	9-1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama (US 4,123,170) in view of Garner (US 5,557,456).

Regarding claims 1, 3-5, 13, 15 and 18, Uchiyama teaches two image acquiring optical subsystems (26 and 27 as well as 29 and 30)) a bridge which connects the two microscope subsystems mechanically and optically to one another (Fig. 5), respective XY stages (21 and 20) movable in motorized fashion provided for each image-acquiring optical subsystem (Fig. 5) and a control unit for moving the XY stage in motorized fashion (col. 4 lines 50-53). Uchiyama teaches the subsystems are microscopes (col. 1 lines 59-60). Uchiyama lacks reference to moving the stages in the Z direction. Garner teaches the use of a stage movable in the X, Y and Z directions (Fig. 1). Garner teaches the displacement of the XYZ stage in the X direction, Y direction and Z direction, a motor (4-6) provided which receives the signals of the control unit and converts them into corresponding rotation (Fig. 1). Garner teaches the control and adjustment apparatus possesses an X actuation element (6), a Y actuation element (5) and a Z actuation element (4) for displacing the XYZ stage (Fig. 1). Garner teaches movement in the Z direction is for focusing (col. 1 line 41). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Uchiyama reference include movement in the Z direction as taught by Garner for the purpose of focusing the light on the stages.

Regarding claims 14, 16 and 17, Uchiyama teaches the invention as claimed but lacks reference to the specifics of the control unit. Garner teaches the control unit is a control and adjustment apparatus that is associated with the subsystems and a first remote control device (9) is respectively connected to the first subsystem (7) and a second remote control device (11) is connected to the second subsystem (1; Fig. 1). Garner teaches the control and adjustment apparatus encompasses an on/off switch for synchronous displacement of the two XYZ stages which acts in such a way that when the on/off switch for synchronous displacement is switched on, both the XYZ stages are movable synchronously regardless of the actuation of the X, Y or Z actuation elements (col. 3 lines 50-58). Garner states that when one or more of the manual control knobs are moved the manual controls take over for the computer driven controls. Garner teaches the first remote control device and the second remote control device encompass a plurality of actuation elements; and the actuation elements of the first remote control device and the second remote control device are also synchronizable in pairs (Fig. 1; 14, 16, 18; col. 2 lines 6-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Uchiyama invention include the control unit of Garner for the purpose of being able to accurately scan the light over the stage and focus the light with regards to the stage.

Regarding claims 19 and 20, Uchiyama teaches the invention as claimed but lacks reference to a computer. Garner teaches the XYZ stage synchronization switched on and off by way of a PC (col. 3 lines 50-58). Garner teaches the invention as claimed including the use of a comparison optical system associated with a computer (9) that supplies signal to the comparison optical system and receives image data or settings data from the comparison optical system. Garner lacks reference to a RS232 or USB connection. Both RS232 and USB connections are

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extremely well known means of connecting a computer to another electronic device. Official Notice is taken. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Uchiyama invention include the computer of Garner and USB or RS232 cables as is known in the art for the purpose of efficiently and reliably relaying signals between the two devices.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama (US 4,123,170) in view of Garner (US 5,557,456) as applied to claim 1 further in view of Reichel (US 4,403,839).

Regarding claim 2, Uchiyama in combination with Garner teaches the invention as claimed but lacks reference to the use of macroscopes. Reichel teaches that macroscopes are well known replacements for microscopes (abstract). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the microscope of Garner be a macroscope as taught by Reichel for the purpose of viewing larger sized objects.

Claims 6-12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Uchiyama (US 4,123,170) in view of Garner (US 5,557,456) and Reichel (US 4,403,839).

Regarding claims 6, 7 and 9, Uchiyama teaches two image acquiring optical subsystems (26 and 27 as well as 29 and 30)) a bridge which connects the two microscope subsystems mechanically and optically to one another (Fig. 5), respective XY stages (21 and 20) movable in motorized fashion provided for each image-acquiring optical subsystem (Fig. 5) and a control unit for moving the XY stage in motorized fashion (col. 4 lines 50-53). Uchiyama lacks

reference to moving the stages in the Z direction and the use of a macroscope. Garner teaches the use of a stage movable in the X, Y and Z directions (Fig. 1). Garner teaches the displacement of the XYZ stage in the X direction, Y direction and Z direction, a motor (4-6) provided which receives the signals of the control unit and converts them into corresponding rotation (Fig. 1). Garner teaches the control and adjustment apparatus possesses an X actuation element (6), a Y actuation element (5) and a Z actuation element (4) for displacing the XYZ stage (Fig. 1). Garner teaches movement in the Z direction is for focusing (col. 1 line 41). Reichel teaches that macrosopes are well known replacements for microscopes (abstract). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the microscope of Garner be a macroscope as taught by Reichel for the purpose of viewing larger sized objects. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Uchiyama reference include movement in the Z direction as taught by Garner for the purpose of focusing the light on the stages.

Regarding claims 8, 10 and 11, Uchiyama teaches the invention as claimed but lacks reference to the specifics of the control unit. Garner teaches the control unit is a control and adjustment apparatus that is associated with the subsystems and a first remote control device (9) is respectively connected to the first subsystem (7) and a second remote control device (11) is connected to the second subsystem (1; Fig. 1). Garner teaches the control and adjustment apparatus encompasses an on/off switch for synchronous displacement of the two XYZ stages which acts in such a way that when the on/off switch for synchronous displacement is switched on, both the XYZ stages are movable synchronously regardless of the actuation of the X, Y or Z actuation elements (col. 3 lines 50-58). Garner states that when one or more of the manual

control knobs are moved the manual controls take over for the computer driven controls. Garner teaches the first remote control device and the second remote control device encompass a plurality of actuation elements; and the actuation elements of the first remote control device and the second remote control device are also synchronizable in pairs (Fig. 1; 14, 16, 18; col. 2 lines 6-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Uchiyama invention include the control unit of Garner for the purpose of being able to accurately scan the light over the stage and focus the light with regards to the stage.

Regarding claim 12, Uchiyama teaches the invention as claimed but lacks reference to a computer. Garner teaches the invention as claimed including the use of a comparison optical system associated with a computer (9) that supplies signal to the comparison optical system and receives image data or settings data from the comparison optical system. Garner lacks reference to a RS232 or USB connection. Both RS232 and USB connections are extremely well known means of connecting a computer to another electronic device. Official Notice is taken. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Uchiyama invention include the computer of Garner and USB or RS232 cables as is known in the art for the purpose of efficiently and reliably relaying signals between the two devices.

(10) Response to Argument

Applicant argues the Uchiyama reference fails to teach or suggest each image-acquiring system associated with its respective XYZ stage. As stated in the rejection above the Uchiyama

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reference teaches X and Y motion but fails to teach motion in the Z direction. The Garner reference is used to teach movement of a microscope stage in the X, Y and Z directions. The applicant further argues the stages pointed out in the rejection (20 and 21) are not stages but are sample masks. The examiner agrees that elements 20 and 21 of Uchiyama are sample mask, but the references in the rejection above are merely to indication the respective portions of the stage (22) of Uchiyama with which each of the image-acquiring systems is associated. The claim language does not require “separate” or “distinct” motorized XYZ stages only that each image-acquiring system be associated with its respective motorized XYZ stage. The claim language allows for the respective XYZ stage to be a single stage that is large enough to be imaged by each of the image acquiring systems. As shown in Fig. 4 of Uchiyama the stage 22 spans the entire distance between the two image acquiring systems to allow both systems to be associated with the stage 22 at the locations of 20 and 21. Therefore the broadest reasonable interpretation of the claim language is satisfied by the prior art as stated in the rejection above.

Applicant argues the Uchiyama reference fails to mention the word “synchronously.” The examiner agrees that the word “synchronously” is not present in the Uchiyama reference. However, the word synchronously does not have to be present for the reference to provide a teaching of synchronous movement by the respective stage. Clearly as the stage 22 moves, the locations of masks 20 and 21 will move with the stage along the same direction at the same rate of movement, due to the fact that the masks are directly on the stage. The stage 22 is a solid material as shown in Fig. 4 therefore the movement of any piece of the stage will cause the rest of the stage to move synchronously and carry along with it the locations shown by 20 and 21.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Joshua L Pritchett



Conferees:

Drew Dunn 

Darren Schuberg

